Remarks

Upon entry of the foregoing amendment, claims 1-41 are pending in the application, with claims 1, 11, 20, 27, 30, and 38 being the independent claims. Independent claims 1, 11, 20, 27, 30, and 38 have been amended to further clarify the claims. Specifically, in each claim, it was made clear that the magnitude comparisons are comparisons of absolute values. Support for this amendment can be found in the specification at pages 69-73. Applicants believe that the phrases "magnitude comparison" and "comparison of absolute values" in each independent claim are redundant. However, this amendment is made in order to help expedite prosecution of the application. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Rejections under 35 U.S.C § 103

On page 2, the Office Action states that claims 1-41 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. No. 5,977,987 to Duluk, Jr. (hereinafter, "Duluk"), in view of the "MIPS R4000 Microprocessor User's Manual" by Joe Heinrich (hereinafter, "Heinrich"). Applicants respectfully traverse.

The Office Action asserts on page 2 that Duluk discloses the invention as claimed, with the exception of the use of compare instructions. The Office Action then states that the use of compare instructions is shown in Heinrich's floating-point compare instructions. Applicants respectfully disagree with this assertion.

Neither Duluk nor Heinrich, alone or in combination, teaches all of the elements of the independent claims. For example, Duluk does not teach or suggest "using a floating point magnitude compare instruction to perform a magnitude comparison of absolute values between at least a portion of said plurality of transformed coordinates and a value representing a plurality of edges of a specified view volume," as recited in independent claim 1 (emphasis added). Similarly, Duluk does not teach or suggest performing "a plurality of magnitude compare operations, ... wherein each magnitude compare operation involves a single comparison of absolute values," as recited in independent claim 20 (emphasis added). Heinrich does not cure these deficiencies of Duluk. Accordingly, the requirements for prima facie obviousness have not been met, and Applicants request that the rejections under 35 U.S.C. § 103(a) of independent claims 1 and 20, and their respective dependent claims, be removed and that these claims be passed to allowance.

The remaining independent claims 11, 27, 30, and 38 have features similar to claims 1 and 20, discussed above. Therefore, Applicants request that the rejections under 35 U.S.C. § 103(a) of independent claims 11, 27, 30, and 38, and their respective dependent claims, also be removed and that these claims be passed to allowance.

For at least the reasons stated above, Applicants submit that all independent claims 1, 11, 20, 27, 30, and 38 and the claims depending therefrom are patentable over the cited documents.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the

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Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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